ABSTRACT

A control valve for a brake booster having a first member with a first bore, a second member located in the first bore and having a second bore, a plunger located in the second bore and connected to an input member. A gear fixed to the second member with teeth that engage a first rack retained in the first body and a stationary rack within the brake booster. A force applied to the input member controls the development of a pressure differential that moves a wall during a brake application. Movement of the wall causes a rotative torque to be transmitted from the first rack into teeth such that the gear moves with respect to the second rack and the second body to separates from the first body and as a result the travel of input member is less than the travel of the wall during a brake application.